

REMARKS

Initially, Applicant acknowledges with appreciation that the Examiner has indicated that claims 3-5 and 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Applicant also acknowledges that the Examiner has considered the Information Disclosure Statement filed December 4, 2003 by return of the initialed forms PTO-1449 submitted therewith. However, it is noted that the Examiner has crossed off a number of the cited foreign documents listed on page 2 of the Forms PTO-1449. Applicant notes that each of these documents was briefly discussed on page 1, in the paragraph beginning at line 14, of the specification as originally filed. Furthermore, while the documents are not in English, the Examiner can certainly consider the cited documents to the extent that they can be understood from the disclosure present in the drawings thereof. Accordingly, Applicant has attached a copy of page 2 of the previously submitted PTO-1449, and respectfully request that the Examiner consider all the documents thereon and return an initialed copy of page 2 of the Form PTO-1449 to the Applicant with the next Official Action.

Claims 1-3 have been amended, claim 3 has been rewritten into independent form as new claim 11, and claims 12-16, which correspond to claims 4, 5 and 8-10, have been added. Accordingly, claims 1-16 are currently pending in the application.

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Reconsideration of the rejections and allowance of the pending application in view of the foregoing amendments and following remarks are respectfully requested.

In the Office Action of August 1, 2005, claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Higashino et al., U.S. Patent No. 5,143,402 ("Higashino"), and claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higashino in view of Hirashara et al., U.S. Patent No. 4,949,990 ("Hirashara"). This rejection is respectfully traversed.

Independent claim 1 has been amended to more clearly define a structural feature of an embodiment and to more clearly distinguish over the applied prior art references by further reciting that the wedge member is configured to pivotally move, and a hook piece configured to be directly engaged with the movable gear extends from the wedge member. No new matter is believed to be introduced by the present amendment. In this regard, the Examiner's attention is directed to, inter alia, Figs. 6a and 6b of Applicant's application.

It is a feature of an embodiment to provide a tilt steering apparatus for a vehicle with a simple manufacturing process, capable of securing an enough space where a driver's knees are configured to placed.

To achieve the above-noted feature, a tilt steering apparatus for a vehicle, as recited in amended claim 1, includes, inter alia, a lower steering shaft of which low end being mounted with a steering gear, an upper steering shaft of which top end being mounted with a steering wheel, a universal joint that joints a top end of the lower steering shaft with a low end of the upper steering shaft, a lower column member fixed to a vehicle body to support the lower steering shaft to be pivotable, an upper column member that supports the upper steering shaft to be pivotable, and a tilt lock mechanism that tilt-locks the upper column member to the lower column member, wherein the top end side of the upper column member is closed. The tilt lock mechanism includes a fixed gear attached to the lower column member, a movable gear attached to a top end side of the upper column member in such a manner to be pivotable, slots perforated on both sides (left and right) of the upper column member, and a wedge member disposed at the slots to tooth-lock the movable gear to the fixed gear by pressing the movable gear. Further, the wedge member is configured to pivotally move, and a hook piece extending from the wedge member is configured to directly engage the movable gear.

Applicant respectfully submits that the references relied upon in the rejections under 35U.S.C. 102(b) and 103(a), considered singly or in any proper combination, do not disclose such a combination of features. In particular, at least, the combination of the features of an embodiment that a wedge member 171 is configured to pivotally move, and a hook piece 173 extending from the wedge member 171 is configured to directly engage the movable gear 32 is not disclosed in the applied references.

In the Official Action the Examiner asserts that “a wedge member 30 disposed at the slots to tooth-lock the movable gear to the fixed gear by pressing the movable gear” and “a hook piece 37 mounted on the wedge member to encompass a lower end side of the movable gear” are disclosed in Higashino.

However, in the Higashino, the shaft 30 does not move pivotally (see, Fig. 4 and col. 4, lines 40-46), and the hook 37 is formed at the front end of the hook plate 36 and engages the shaft 37 (see, col. 7, lines 5-6). Therefore, although the Higashino reference discloses a tilt type steering device, Higashino does not teach the wedge member and the hook piece as noted above.

The secondary Hirahara reference is not even related to the tilt lock mechanism as disclosed in the present invention. Instead, Hirahara is directed to an energy absorbing structure provided under a steering column cover.

Therefore, neither Higashino nor Hirahara teaches the wedge member configured to pivotally move, or the hook piece extending from the wedge member and configured to directly engage the movable gear.

Thus, Higashino does not anticipate the present invention or render the presently claimed invention unpatentable, and Hirashara does not overcome the deficiencies of Higashino.

Thus, even assuming, arguendo, that the teachings of Higashino and Hirashara can be properly combined, the asserted combination of the references would not result in the invention as recited in amended independent claim.

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Independent claim 1 is now in condition for allowance in view of the amendments and the above-noted remarks. Dependent claims 2-10 are also submitted to be in condition for allowance in view of their dependence from the allowable base claims and also at least based upon their recitations of additional features of the present invention. It is respectfully requested, therefore, that the rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) be withdrawn and that an early indication of the allowance thereof be given.

The specification is objected to because of informalities asserted by the Examiner. In response, the specification has been amended to correct the informalities thereof.


Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based on prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to be attached thereto.

Based on the above, it is respectfully submitted that this application is now in condition for allowance, and a Notice of Allowance is respectfully requested.

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Should the Examiner have any questions or comments regarding this response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
Byeong-Hoon LEE

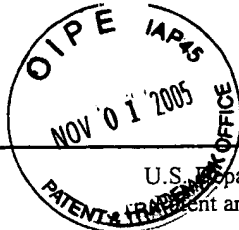


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Attachment: Form PTO-1449, page 2 (copy)

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Form PTO-1449

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Patent and Trademark OfficeAtty. Docket No.  
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**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**  
(Use several sheets if necessary)

Applicant  
Byeong-Hoon LEEFiling Date  
August 28, 2003Group  
3682**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
		6 - 1 1 1 0	01/11/94	JAPAN			
3	-	1 1 2 4 6 8	11/18/91	JAPAN			
6	4	- 5 1 5 6 7	03/30/89	JAPAN			
6	3	- 5 2 6 6 6	04/08/88	JAPAN			
6	3	- 1 2 4 7 0	01/27/88	JAPAN			
60	-	1 4 4 5 6 9	09/25/85	JAPAN			
57	-	1 4 2 6 7 7	09/07/82	JAPAN			

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**


EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.